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February 1, 1999

Ms. Magalie Roman Salas, Secretary
Federal Communications Commission
Rm 222
1919 M Street, NW
Washington, D.C. 20554

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Re: *Amendment of Parts 1, 21 and 74 to Enable Multipoint
Distribution Service and Instructional Television Fixed Service
Licensees to Engage in Fixed Two-Way Transmissions*
MM Docket No. 97-217
File No. RM-9060
Consolidated Opposition to Petitions for Reconsideration
Of Instructional Telecommunications Foundation, Inc.

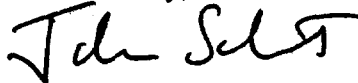
FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Dear Ms. Salas:

Attached hereto are an original and four copies of the Consolidated Opposition to Petitions for Reconsideration ("Consolidated Opposition") of Instructional Telecommunications Foundation, Inc. ("ITF") in the above-captioned proceeding.

Because of confusion as to the applicable deadline, ITF erroneously filed an Opposition to Petitions for Reconsideration ("Opposition") in the above-captioned rulemaking early. That document did not address two important Petitions for Reconsideration. The attached Consolidated Opposition opposes those two submissions, along with others. We ask that ITF's early-filed Opposition be replaced in the record by this Consolidated Opposition.

Sincerely,



John Schwartz
President

Attachments

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
) MM Docket No.
Amendment of Parts 1, 21 and 74 to Enable) 97-217
Multipoint Distribution Service)
and Instructional Television Fixed) File No. RM-9060
Service Licensees to Engage in Fixed)
Two-Way Transmissions)

To: The Commission

INSTRUCTIONAL TELECOMMUNICATIONS FOUNDATION, INC.

CONSOLIDATED OPPOSITION TO PETITIONS FOR RECONSIDERATION

I. The Commission Should Reject Petitioners' Proposal for "Streamlined Processing" of Major ITFS Modifications to the Degree That Such Entails the Automatic Grant of Interfering Applications.

The Petitioners have advanced a proposal on reconsideration which will compound an existing flaw in the initial Report and Order ("Two-Way Order") in the above-captioned proceeding. Petitioners propose that major ITFS modifications be accepted in the same filing windows as two-way applications, and be subject to the same "streamlined" processing.¹ If adopted, this proposal means that major modification applications will be eligible for automatic grant even when they cause interference with other new

¹ Petitioners' Petition for Reconsideration, pp.17-19.

proposals. This feature of Petitioners' proposal is unwise, and further illustrates the unsoundness of automatic grants as a concept.²

Consider the possibilities:

- o Two conventional major modification applications may be filed in the same window, which applications produce interference between two existing systems that previously had operated satisfactorily. Under present rules, because these applications would be considered mutually exclusive, only one of them could prevail; however, under "streamlined processing" as proposed by the Petitioners, both could be authorized.

- o A major modification of downstream facilities could be proposed at the same time that other applicants propose two-way facilities, including boosters and/or response hubs. Even if the downstream major mod. interferes with the two-way proposal---and if the booster transmissions or response stations interfere with the modified downstream system---all could be granted automatically.

ITFS major modifications include downstream power increases, long site moves, height increases, frequency changes, polarization changes, and changes in transmitting antenna patterns, among others. These sorts of changes have the potential to create wide-ranging new interference. Further, in regions with closely-spaced ITFS systems, the array of one-way and two-way ITFS applications that could be filed simultaneously

² Like other ITFS parties, ITF does support the processing of ITFS major modification applications in the same windows as two-way applications. See, for example, the Petition for Reconsideration of The National ITFS Association at paragraph 13. As we will discuss at greater length in this Opposition, ITF also supports streamlined processing of ITFS applications; what we oppose is the automatic grant of applications which will create interference if both facilities are constructed.

make it possible for intricate "daisy chains" of incompatible proposals to develop. Because of the many parties and competing interests involved, it is unrealistic to expect voluntary settlement of all such complicated mutual exclusivities simply because licenses are granted automatically.

We note that BellSouth's Petition for Reconsideration underlines these concerns, and makes clear that voluntary settlements will not inevitably follow automatic grants. BellSouth states:

[I]n some cases, applicants could file for facilities that would inadvertently cause interference to another applicant's concurrently-filed proposal. Because of the lack of mutual exclusivity under streamlined processing could lead to grants of facilities causing substantial interference to one another, parties would be without recourse if they could not reach a private agreement to resolve interference claims. Without procedures for expedited dispute resolutions, BellSouth and other operators may not be able to justify the enormous investment represented by conversion to digital.³ [Emphasis added.]

As with the grant of multiple incompatible two-way systems, the automatic grant of incompatible facilities involving major mods. leaves licensees with the conundrum of whether actually to construct. Significantly, it is often much less expensive to implement major modifications than to build whole new two-way systems, making it more feasible for downstream-only licensees to engage in build-it-first brinkmanship once they have secured Commission authorization for modified facilities.

³ Petition for Reconsideration of BellSouth Corporation and BellSouth Wireless Cable, Inc. (collectively, "BellSouth"), p. 8.

In sum, Petitioners' proposal compounds what was a bad idea from the start. It should be rejected, as should the current Rules' provisions that allow the automatic grant of interfering two-way proposals.

II. There are Workable Methods to Streamline Processing Which do Not Entail the Automatic Grant of Interfering Applications.

We are heartened that other parties seeking reconsideration in this proceeding urge expedited resolution of conflicting applications without automatic grants of interfering proposals, and/or disagree with the Commission's rationale underpinning automatic grants.⁴

ITF agrees with the Two-Way Order's premise that it is desirable to deploy two-way facilities rapidly, and that a streamlined method of authorizing both two-way systems and conventional major modifications is needed. However, alternatives are available to the Commission which will speed the grant of new licenses without allowing mutually interfering facilities.⁵

⁴ See, respectively, the Petitions for Reconsideration of the National ITFS Association at p. 8, and The San Francisco-San Jose Educator/Operator Consortium, p. 5. See also the BellSouth Petition for Reconsideration, pp. 7-12.

⁵ In its Petition (pp. 7-12), BellSouth recommends that the Commission automatically grant interfering proposals, then embark on an expedited process for resolving the problems created by the automatic grants which it just made. ITF believes that while BellSouth's concerns are valid, its recommendation is backwards. If conflicting proposals can be reconciled expeditiously after automatic grants are made, why can't they--- and shouldn't they---be reconciled beforehand?

ITF recommends the following:

During the 60-day "reconciliation period" and the ensuing 90-day period for petitions to deny, applicants, the public, and the Commission staff should review pending proposals for defects and mutual exclusivity. If the Commission staff finds problems with a proposal, it could issue a deficiency letter to the applicant with a deadline for amendment. If the Commission staff finds a mutual exclusivity, it could notify the competing applicants of its finding. During this time, applicants would have the opportunity to petition to deny defective proposals and/or notify the Commission of apparent mutual exclusivities.

Applications which emerge from the petition to deny period without the submission of any petition to deny or allegation of mutual exclusivity would be granted automatically. Others would be processed by the Commission staff.⁶ In the event of interference conflict, only one of the mutually-exclusive applications would be granted, and the Commission could select the winner among competing proposals according to the then-current rules.

ITF supports the rapid resolution of incompatible proposals. We see nothing wrong with pre-grant Commission action that occurs

⁶ Applications which are subject to a Petition to Deny will be processed by Commission staff under the Rules established by the Two-Way Order; no party submitting a Petition for Reconsideration in this proceeding has objected to staff processing under these circumstances.

as quickly as BellSouth proposes.⁷

Of course, none of the foregoing precludes the voluntary settlement of mutually exclusive proposals, as the Commission encourages. Parties who settle under the system ITF proposes would obtain faster time to market and certainty as to what facilities they receive. ITF submits that these incentives are considerable---in our view, fully equal in strength to the incentives to settle in an grant automatic regime.⁸

III. ITF Vehemently Opposes BellSouth's Proposal that Excess Capacity Lessees Be Allowed to Hold ITFS Booster Licenses.

A bit of background is in order with respect to ITFS boosters. In the analog one-way period, boosters typically were low-power devices also known as "beambenders," in that they were used to supply signal coverage to small shadowed areas which did not have line-of-sight to the main transmitter. Typically, boosters were broadband devices that amplified all of the thirty-odd ITFS and MMDS frequencies, feeding them into a single highly-directional transmitting antenna. Such boosters simply rebroadcast the content of the main transmitters and they operate at extremely low power: -9 dBW or less. Because of such boosters' very limited range, the Commission allowed them to be deployed without advance authorization, so that a technician

⁷ BellSouth Petition for Reconsideration, p. 8.

⁸ Most importantly, the system ITF proposes will insure that both modified downstream facilities and new upstream facilities will operate without unacceptable interference.

could install one the same day if he/she found a given receive location to be shadowed.

High power boosters also were permitted to operate with an EIRP of up to 18 dBW under the one-way Rules, although those over -9 dBW had to be authorized by the Commission in advance. Like low-power "beambenders," high power boosters were used only for retransmission of main channel signals.

Under former Section 74.985(a), licenses for both high power and low power boosters could be held by ITFS licensees or third parties which leased capacity from licensees. Lessees could not hold licenses unless they had the permission of the ITFS licensee whose signal was retransmitted.

Under the new two-way Rules, only ITFS licensees and conditional licensees are eligible to hold booster licenses. However, low-power boosters (-9 dBW or less) can be operated by third-party lessees.⁹ We believe that these Rules are appropriate to the two-way environment.

The less important change is that excess capacity lessees will no longer be able to hold licenses for low power boosters; instead, the ITFS licensee will have to file the post-installation license applications. Thus ITFS licensees and their lessees will have to come to an understanding as to procedures for installing low-power boosters and applying for covering

⁹ See Section 74.985(e).

licenses. However, in essence this is no different from the prior practice under which either the licensee filed for booster licenses itself or gave permission for the lessee to do so.

The Rules concerning high power boosters are crucial, however.

In cellularized two-way systems, boosters will carry digital signals which are entirely distinct from those sent from the main transmitter. In this architecture, individual receive locations will order their own information, which is delivered to the booster site by wired or wireless "backhaul" links, and then transmitted to the customer. If the system has any significant number of cells, most receive sites will be served from boosters. There is no longer any maximum EIRP for boosters. In sum, in the two-way world there is no real distinction between main transmitters and high-power boosters.

BellSouth urges that lessees be allowed to hold booster licenses under a two-way regime¹⁰ and states that "the right of lessees to hold booster station licenses in no way harms licensees of the main station."¹¹ ITF could not disagree more. If a lessee operates one or more high power boosters, it eliminates interference protection to much of the main station PSA. Upon the expiration of the excess capacity lease, the main

¹⁰ BellSouth Petition for Reconsideration, pp. 10-12.

¹¹ Id. at p. 11.

station's service will be crippled if it can no longer operate in tandem with its boosters. Boosters licensed to third parties, however, could continue to operate, often serving most of the ITFS station's coverage area. Thus BellSouth's proposal constitutes a true takeover of ITFS spectrum by commercial interests.

IV. ITF Supports the National ITFS Association's Petition for Reconsideration and the Intra-Industry "Joint Statement."

As the National ITFS Association ("NIA") points out in its Petition for Reconsideration, the Joint Statement NIA reached with the Wireless Communications Association ("WCA") was an elaborately constructed, and long-negotiated, compromise.¹² Both sides made concessions that they would have preferred to avoid, and the result was a rather complex agreement of carefully balanced trade-offs.

One intended effect of the Joint Statement was to help struggling wireless cable companies re-invent themselves as an industry of two-way digital telecommunications firms, while continuing to rely heavily on ITFS spectrum in their new incarnation. This intention has been embodied fully in the Two-Way Order.

The other intended effect was to retain the educational character and capabilities of ITFS operators so that any

¹² John Schwartz, president of ITF, was a member of the committee which represented NIA in these negotiations.

licensee, no matter how unfavorable the excess capacity lease, would be able to expand instruction via digital technology, thereby sharing the fruits of conversion to two-way. One key provision of the Joint Statement, for example, recommends rules which allow an ITFS operator to reclaim up to 25% of its system's digital capacity for instruction---although, in deference to commercial interests, this recapture can be quite gradual. In order to obtain the collective educational benefits of the Joint Statement, NIA made a number of concessions which it otherwise likely would have refused, such as supporting the extension of ITFS lease terms to 15 years.

Arguably, the Two-Way Order demonstrates that the intra-industry compromise was a bad idea; it embraces the pro-commercial elements of the Joint Statement, while jettisoning or attenuating many of the provisions which were intended to keep education from being lost in the hoped-for industry transformation.

ITF asks that the Joint Statement be accepted on reconsideration for two reasons. The most important is that it serves the public interest and keeps ITFS from being *de facto* reallocated as a commercial service---which, in our view, is now a real danger. The other is that when the Commission breaks apart a compromise it destroys the future incentive to compromise. Wireless cable operators and ITFS licensees are

highly interdependent; this interdependence kept them working at the Joint Statement even when it appeared that the effort was futile. However, should the Two-Way Order remain unaltered, there will be no reason ever for these groups to work so hard for public policy accommodation again. Inadvertently, the Commission will have fostered division where it does not belong.

V. Other Issues.

A. The Qualcomm Proposal. ITF supports the Petition for Reconsideration filed by Quaalcom, Inc., which contains a package of measures designed to facilitate deployment of high data rate (HDR) wireless technology on ITFS and MMDS frequencies. ITF believes that HDR could bring exciting new educational and commercial applications to our spectrum. Since it delivers data at high speed and apparently low cost, we believe schools and educators will be avid adopters of the technology and we look forward to being able to offer it among our educational services.

Because HDR equipment will operate at such low power (-6 dBw or less), we believe that it is extremely unlikely to cause problems due to brute force overload, and that, indeed, its potential for causing interference is minimal in general.

B. Petitioners' Proposal for Deregulation of High Power Upstream Transmitting Equipment. Petitioners request that "the rules be revised so that any response station can be activated without advance notice and without professional installation unless it is within 1960 feet of an ITFS receive site registered

and constructed before the filing of the application for the associated response station hub."¹³ Unlike the HDR equipment proposed by Qualcomm, the response transmitters which Petitioners seek to deregulate are authorized to operate with as much as 33 dBw, and thus are capable of creating interference over long distances. Interference could result from a mistake as simple as pointing the transverter in the wrong direction.

The entire upstream interference regime conceived by the Petitioners, and adopted by the Commission, posits the establishment of response service areas in which the number of upstream transmitters is limited and their operation is controlled to avoid interference. This system is not consistent with the retail sale of high-power transverters to be installed by amateurs at locations which the amateurs determine and can change at will. Indeed, the Petitioners do not advocate such do-it-yourself arrangements unless the installation takes place more than 1,960' of a registered receive site; the flaw here is that if a customer buys a transverter and installs it, there is no reliable way to know in advance that the device will be located at the appropriate distance.

In sum, ITF believes that high power response transmitters must be professionally installed.

C. Formalization of Interference Complaint Procedures.

¹³ Petitioners' Petition for Reconsideration, p. 9.

ITF believes that the advent of two-way operation is likely to bring a considerable number of novel interference complaints before the Commission. We therefore support the request of the Catholic Telecommunications Network (CTN) that the Commission set forth detailed guidelines for interference complaints in the two-way environment. CTN's proposals will provide greater certainty to both ITFS licensees and those constructing two-way systems.¹⁴

D. Advance Notification of Response Transmitter Installation. ITF agrees with Petitioners and other parties that one business day's advance notification of a response transmitter installation is sufficient. The point of advance notification is to alert the ITFS receive site to be on the lookout for a possible new interference source. One business day is enough time to fulfill this purpose.

E. Extension of ITFS Lease Terms as a Result of the Two-Way Order. Like CTN, ITF is aware of ITFS excess capacity leases which provide the automatic extension of the lease term if the Commission's policies are amended in a manner that permits terms in excess of 10 years.¹⁵ Most current leases were executed during the one-way analog era, and do not contemplate two-way digital use of ITFS frequencies. ITF believes that the Commission action extends the term of such agreements but does

¹⁴ CTN's proposals are set forth at pp. 3-8 of its Petition for Reconsideration.

¹⁵ See the CTN Petition for Reconsideration, pp. 20-21.

not---and should not---otherwise alter them. Now that two-way operation of ITFS systems is permitted, it is up to the parties which have entered into excess capacity leases to determine whether, and how, they are to revise their existing agreements to reflect new uses of the spectrum. We do not believe that further Commission action or clarification is needed under these circumstances.

F. The Effect of ITFS License Transfers on Excess Capacity Leases. In its Petition, BellSouth asks that the Commission reconsider its long-held, and newly-reaffirmed, policy that an ITFS licensee is prohibited from assigning its excess capacity lease obligations when it transfers its license.¹⁶ What BellSouth ignores is that ITFS frequencies are primarily educational, and that only excess capacity is allowed to be commercial in character. ITFS licensees can be very different, and can require different amounts of airtime at different times of day.

For instance, if a school district which makes use of daytime capacity to send material to elementary and secondary schools transfers its license to a community college that emphasizes serving adults in the evening, traditional excess capacity patterns will be changed. It simply will not do for the community college to wait as long as 15 years to make proper

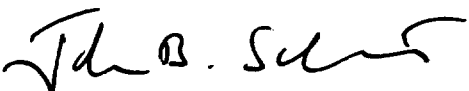
¹⁶ BellSouth Petition for Reconsideration, pp. 15-17.

educational use of its own airtime.

Although BellSouth argues that current policy is unfavorable, and perhaps unfair,¹⁷ those policies have not kept it from building several digital wireless cable systems---even when excess capacity lease terms were limited to 10 years. BellSouth's own actions thus demonstrate that no change in Commission policy is needed.

Respectfully submitted,

INSTRUCTIONAL TELECOMMUNICATIONS
FOUNDATION, INC.

By: 
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Dated: January 28, 1999

¹⁷ Id. at p. 15. ("Companies such as BellSouth spend millions of dollars to construct transmission facilities, operate a business and compensate MDS and ITFS licensees for the use of their spectrum. If an ITFS licensee could assign its license during the lease term without honoring the lease commitment, the operator may have no assurance that it will be able to continue to use the capacity.")

Certificate of Service

I, Robert P. Smoke, hereby certify that I have served a copy of Instructional Telecommunications Foundation's foregoing Opposition to Petitions for Reconsideration on the following by first class mail, postage prepaid, on this 2nd day of February, 1999.

Signed,

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